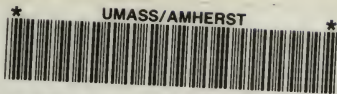


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ISOLATION and QUARANTINE regulations

MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF COMMUNICABLE DISEASES



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**ISOLATION AND QUARANTINE REGULATIONS
OF DISEASES DECLARED TO BE DANGEROUS
TO PUBLIC HEALTH**

The Department of Public Health, acting under the authority of Section 6, Chapter 111 of the General Laws hereby prescribes and establishes the following Isolation and Quarantine Requirements of diseases declared to be dangerous to Public Health.

Effective 8/11/64

<u>Disease</u>	<u>Minimum Period of Isolation of Patient</u>
1. Actinomycosis	No restrictions
Amebiasis (See Dysentery, Amebic)	
2. Animal Bite	No restrictions
3. Anthrax	Until lesions are healed or free of anthrax bacilli.
Botulism (See Food Poisoning)	
4. Brucellosis (Undulant Fever)	No restrictions
5. Chancroid	No restrictions if under treatment.
6. Chickenpox (Varicella)	One week from appearance of eruption.
7. Cholera	In a fly-proof room for 14 days and thereafter until three successive stool cultures taken at least 24 hours apart are negative.
8. Diarrhea of the Newborn (onset before age of 4 weeks - 28 days)	Until complete clinical recovery.

<u>Minimum Period of Quarantine of Contacts</u>	
<u>Adults</u>	<u>Children</u>

- | | | |
|---|---|----|
| No restrictions | No restrictions | 1. |
| No restrictions | No restrictions | 2. |
| No restrictions | No restrictions | 3. |
| No restrictions | No restrictions | 4. |
| No restrictions if under medical care. | No restrictions | 5. |
| No restrictions | No restrictions | 6. |
| One week from date of last exposure and until a negative stool culture is obtained after the 5th day of quarantine. | One week from date of last exposure and until a negative stool culture is obtained after the 5th day of quarantine. | 7. |
| No restrictions except for nursery personnel, who shall be excluded from the nursery if a FA staining or culture from throat swabs or stool is positive for enteropathogenic E. coli or other pathogenic organisms. | No restrictions except for infants under two years of age who shall be kept under surveillance for two weeks. | 8. |

<u>Disease</u>	<u>Minimum Period of Isolation of Patient</u>
9. Diphtheria	Until clinical recovery and thereafter until two successive nose and throat cultures taken at least 24 hours apart are negative. Where antibiotics have been used in therapy, release cultures may not be taken until 7 days after discontinuing such therapy. If cultures are still positive 14 days after onset of illness but the organisms are avirulent, the isolation period may end.
10. Dysentery, Amebic	No restrictions except for employees of food service establishments who shall be excluded from their occupations until three successive stool examinations taken at least three days apart are negative, beginning one week after cessation of antibiotic therapy.
11. Dysentery, Bacillary (Shigellosis)	Until clinical recovery and thereafter (except for employees of food service establishments) kept under surveillance until two successive stool cultures taken at least one week apart, beginning one

(Continued on page 6)

Minimum Period of Quarantine of Contacts	
Adults	Children

Adult household contacts who are employees of food service establishments or whose occupations involve close association with children, e.g., teachers, shall be excluded from their occupation for one week from date of last exposure and until two successive nose and throat cultures taken at least 24 hours apart are negative.

Other adult household contacts shall be kept under surveillance for 7 days from last exposure, then released from observation if nose and throat cultures are negative.

Children who have been previously immunized or have had diphtheria may be released when two successive nose and throat cultures taken at least 24 hours apart are negative. Other children shall be under modified quarantine for one week from date of last exposure, and thereafter until two successive nose and throat cultures taken 24 hours apart are negative. 9.

No restrictions except for employees of food service establishments, for whom the restrictions are the same as for a case, viz., until three successive stool examinations taken at least three days apart beginning with date of last exposure are negative.

No restrictions 10.

No restrictions except for employees of food service establishments, who shall be excluded from their occupations until two successive stool cultures taken at least 24 hours apart are negative.

No restrictions 11.

<u>Disease</u>	<u>Minimum Period of Isolation of Patient</u>
11. (Continued from page 4) Dysentery, Bacillary (Shigellosis)	week or more after the cessation of antibiotic therapy, are negative. Employees of food service establishments shall be excluded from their occupations until the two negative release cultures have been obtained as outlined above.
12. Encephalitis (Specify if known)	No restrictions
13. Food Poisoning	
a. Botulism	No restrictions
b. Mushrooms and other poisonous vegetable and animal products	No restrictions
c. Mineral or organic poisons as arsenic, lead, etc.	No restrictions
d. Staphylococcal	No restrictions
14. German Measles	No restrictions
15. Glanders	Until lesions are healed.
16. Gonorrhea	No restrictions if under treatment.
17. Granuloma Inguinale	No restrictions if under treatment.

<u>Minimum Period of Quarantine of Contacts</u>	
<u>Adults</u>	<u>Children</u>

		11.
No restrictions	No restrictions	12.
		13.
No restrictions	No restrictions	a.
No restrictions	No restrictions	b.
No restrictions	No restrictions	c.
No restrictions	No restrictions	d.
No restrictions	No restrictions	14.
No restrictions	No restrictions	15.
No restrictions if under medical care.	No restrictions	16.
No restrictions if under medical care.	No restrictions	17.

<u>Disease</u>	<u>Minimum Period of Isolation of Patient</u>
18. Hepatitis, Viral (Includes Infectious and Serum Hepatitis)	Until end of febrile period.
19. Impetigo of the Newborn	Until lesions have healed.
20. Leprosy	No restrictions if under medical care.
21. Leptospirosis (Including Weil's Disease)	No restrictions
22. Lymphocytic Choriomeningitis	No restrictions
23. Lymphogranuloma Venereum	No restrictions if under medical care.
24. Malaria	In mosquito-free room during febrile phase.
25. Measles (Rubeola)	Four days from appearance of rash.
26. Meningitis (B. influenzal, meningococcal, pneumococcal, streptococcal, and other forms)	Until end of febrile period.

<u>Minimum Period of Quarantine of Contacts</u>		
<u>Adults</u>		<u>Children</u>

No restrictions except for employees of food service establishments who shall be excluded from their occupations for 28 days unless they receive a prophylactic dose of immune globulin.	No restrictions	18.
No restrictions	No restrictions	19.
No restrictions	No restrictions	20.
No restrictions	No restrictions	21.
No restrictions	No restrictions	22.
No restrictions if under medical care.	No restrictions	23.
No restrictions	No restrictions	24.
No restrictions	No restrictions	25.
No restrictions	No restrictions	26.

<u>Disease</u>	<u>Minimum Period of Isolation of Patient</u>
27. Mumps	One week from onset of disease or until all swelling has subsided, whichever is sooner.
28. Ophthalmia Neonatorum	For first 24 hours after administration of antibiotic.
Paratyphoid Fever (See Salmonellosis Typhi & Paratyphi)	
Pertussis (See Whooping Cough)	
29. Plague	In insect-free room until recovery.
30. Poliomyelitis	One week from onset of disease or duration of fever, if longer.
31. Psittacosis	Until recovery.
32. Rabies - Human	For duration of illness.
33. Rickettsialpox	No restrictions
34. Rocky Mountain Spotted Fever	No restrictions
Rubella (See German Measles)	

<u>Minimum Period of Quarantine of Contacts</u>		
<u>Adults</u>	<u>Children</u>	

No restrictions	No restrictions	27.
No restrictions	No restrictions	28.
For contacts of bubonic plague, surveillance for 6 days from last exposure.	Same as for adults.	29.
For contacts of pneumonic plague, quarantine to premises for 6 days unless on chemoprophylaxis and under daily medical supervision for 6 days.		
No restrictions	No restrictions	30.
No restrictions	No restrictions	31.
No restrictions	No restrictions	32.
No restrictions	No restrictions	33.
No restrictions	No restrictions	34.

<u>Disease</u>	<u>Minimum Period of Isolation of Patient</u>
35. Salmonellosis (Except Typhi and Paratyphi)	Until clinical recovery. Employees of food service establishments shall be excluded from their occupations until 2 successive stool cultures, beginning one week after cessation of antibiotic therapy and taken 24 hours apart, are negative.
36. Salmonellosis Typhi and Paratyphi (Typhoid and Paratyphoid Fevers)	<p>Until clinical recovery: Thereafter, except for employees of food service establishments, may be released and kept under surveillance until 2 successive stool and urine cultures or FA stainings taken at least one week apart, beginning one week after cessation of antibiotic therapy, are negative.</p> <p>Employees of food service establishments shall be excluded from their occupations until the 2 negative stool and urine cultures or FA stainings as outlined above have been obtained.</p>
37. Smallpox (Variola)	Two weeks from onset of disease and thereafter until all lesions have healed and all scabs and crusts have fallen off.
38. Smallpox Vaccination Reactions - Generalized Vaccinia, Eczema Vaccinatum	Until recovery.

<u>Minimum Period of Quarantine of Contacts</u>	
<u>Adults</u>	<u>Children</u>

No restrictions except for employees of food service establishments, who shall be excluded from their occupations until two successive stool cultures, beginning from date of last exposure and taken at least 24 hours apart, are negative.	No restrictions	35.
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No restrictions except for employees of food service establishments, who shall be excluded from their occupations until two successive stool and urine cultures or FA stainings taken 24 hours apart, beginning from date of last exposure, are negative.	No restrictions	36.
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For 16 days from last exposure; however, may be released under close daily surveillance after a successful vaccination has been obtained.	Same as for adults.	37.
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No restrictions	No restrictions	38.
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<u>Disease</u>	<u>Minimum Period of Isolation of Patient</u>
39. Streptococcal Infections (Including Erysipelas, Scarlet Fever, Strepto- coccal Sore Throat, etc.)	One week without chemother- apy or 24 hours after chemo- therapy, provided therapy is continued for at least 10 days.
40. Syphilis	No restrictions if under medi- cal care.
41. Tetanus	No restrictions
42. Trachoma	Exclusion from school during acute phase.
43. Trichinosis	No restrictions
44. Tuberculosis	Until sputum or other body secretions are no longer posi- tive according to present standards.
45. Tularemia	No restrictions
Typhoid (See Salmon- ellosis Typhi and Paratyphi)	Until clinical recovery: There- after, except for employees of food service establishments, may be released and kept un- der observation until 2 suc- cessive stool and urine cul- tures or FA stainings taken at least one week apart, be- ginning one week after cessa-

(Continued on page 16)

<u>Minimum Period of Quarantine of Contacts</u>	
<u>Adults</u>	<u>Children</u>

No restrictions except for employees of food service establishments, who shall be excluded from their occupations for one week from last exposure or for 24 hours after specific chemoprophylaxis which is continued for at least 10 days.	No restrictions	39.
No restrictions if under medical care.	No restrictions	40.
No restrictions	No restrictions	41.
No restrictions	No restrictions	42.
No restrictions	No restrictions	43.
No restrictions	No restrictions	44.
No restrictions	No restrictions	45.
No restrictions, except for employees of food service establishments, who shall be excluded from their occupations until 2 successive stool and urine cultures or FA stainings taken 24 hours apart, beginning from date of last exposure, are negative.	No restrictions	

<u>Disease</u>	<u>Minimum Period of Isolation of Patient</u>
(Continued from page 14) Typhoid (See Salmonellosis Typhi and Paratyphi)	tion of antibiotic therapy, are negative. Employees of food service establishments shall be excluded from their occupations until the 2 negative stool and urine cultures or FA stainings as outlined above have been obtained.
46. Typhus Fever (Including Brill's Disease)	No restrictions after proper delousing of patient, clothing and home.
Undulant Fever (See Brucellosis)	
47. Whooping Cough (Pertussis)	Three weeks from beginning of spasmodic cough.
48. Yellow Fever	In mosquito-free room during febrile phase.

<u>Minimum Period of Quarantine of Contacts</u>		
<u>Adults</u>	<u>Children</u>	

No restrictions after delousing person, clothing and home. Otherwise, 14 days after last exposure.	Same as for adults	46.
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No restrictions	No restrictions	47.
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No restrictions	No restrictions	48.
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ISOLATION AND QUARANTINE REGULATIONS

DEFINITIONS AND NOTES

1. Adult - Any person who has reached his eighteenth birthday.

2. Carrier - A carrier is an infected person who harbors a specific infectious agent in the absence of discernible clinical disease and serves as a potential source of infection for man. The carrier state may occur with infections inapparent throughout their course (commonly known as healthy carriers), and also as a feature of incubation period, convalescence, and postconvalescence of a clinically recognizable disease (commonly known as incubatory and convalescent carriers). Under either circumstance the carrier state may be short or long (temporary or chronic carriers). The same applies to vertebrate animals.

3. Chemoprophylaxis - The administration of a chemical, including antibiotics, to prevent the development of an infection, or progression of an infection to active manifest infectious disease. Not to be confused with chemotherapy which refers to use of a chemical to cure a clinically recognizable infectious disease, or to limit its further progress.

4. Cleaning - The removal from surfaces, by scrubbing and washing, as with hot water, soap or suitable detergent, of infectious agents and of organic matter on which and in

which infectious agents may find favorable conditions for prolonging life and virulence.

5. Communicable disease - An illness due to a specific infectious agent or its toxic products, which arises through transmission of that agent or its products from a reservoir to a susceptible host, either directly as from an infected person or animal, or indirectly through the agency of an intermediate plant or animal host, a vector, or the inanimate environment (See 47, Transmission of Infectious Agents).

6. Communicable period - The time or times during which the infectious agent may be transferred directly or indirectly from an infected person to another person, from an infected animal to man, or from an infected man to animal.

In diseases such as diphtheria and scarlet fever, in which mucous membranes are involved from the first entry of the pathogen, the period of communicability is from the date of first exposure to a source of infection, until the infecting microorganism is no longer disseminated from the involved mucous membranes; i.e., from before the prodromata until the termination of a carrier state, if such develops.

In diseases such as tuberculosis, syphilis, and gonorrhea, the communicable state may be at any time over a long and sometimes intermittent period when unhealed lesions of the disease permit the discharge of infectious agents from the surface of the skin or through any of the body orifices. In certain diseases communicability does not occur during the early incubation period or after full recovery; e.g., measles and chickenpox.

In diseases transmitted by arthropods, such as malaria and yellow fever, the periods of communicability are those during which the infectious agent occurs in the blood or other tissues of the infected person in infective form and in sufficient numbers for vector infection. A period of communicability is also to be distinguished for the arthropod vector, namely that time during which the agent is present in the

tissues of the arthropod in such form as to be capable of transmitting infection.

7. Contact - A contact is a person or animal who has been in such association with an infected person or animal or with a contaminated environment as to have had opportunity to acquire the infection. Exposure may be direct and involve physical touching as in kissing, shaking hands, or in sexual intercourse. Persons thus exposed are variously characterized as direct, immediate or intimate contacts. Exposure may be indirect, with no established physical touching, through living in the same household, being in the same room or through remote or close association at school, work or play. Exposure may be long or short; single, continued or repetitive; and either casual or close. Such indirectly exposed persons are often denoted as either familial, school or work contacts; or as close, casual or remote contacts, in expression of varying degrees of risk of a developing infection.

8. Contamination - The presence of an infectious agent on a body surface; also on or in clothes, bedding, toys, surgical instruments or dressings, or other inanimate articles, or substances including water, milk and food. Contamination is distinct from pollution which implies the presence of offensive but noninfectious matter in the environment.

9. Disinfection - Killing of infectious agents outside the body by chemical or physical means directly applied.

Concurrent disinfection is the application of disinfection as soon as possible after the discharge of infectious material from the body of an infected person, or after the soiling of articles with such infectious discharges, all personal contact with such discharges or articles being prevented prior to such disinfection.

Terminal disinfection is no longer practiced after the patient has been removed, or has ceased to be a source of infection or after isolation practices have been discontinued. Terminal cleaning including airing and sunning of rooms,

furniture and bedding - suffices for those diseases spread by indirect contact.

10. Disinfestation - Any physical or chemical process serving to destroy undesired small animal forms, particularly arthropods or rodents, present upon the person, the clothing, or in the environment of an individual, or on domestic animals. (See 27, Insecticide and 41, Rodenticide infra:) This includes delousing as applied to infestation with Pediculus humanus, the body louse.

11. Endemic - The habitual presence of a disease within a given geographic area; may also refer to the usual prevalence of a given disease within such area. Hyperendemic expresses a persistent activity in excess of expected prevalence.

12. Epidemic - An epidemic or outbreak is the occurrence in a community or region of a group of illnesses of similar nature, clearly in excess of normal expectancy, and derived from a common or from a propagated source. The number of cases indicating presence of an epidemic will vary according to the infectious agent, size and type of population exposed, previous experience or lack of exposure to the disease, and time and place of occurrence; epidemicity is thus relative to usual frequency of the disease in the same area, among the specified population, at the same season of year. A single case of a communicable disease long absent from a population (as smallpox in Boston) or first invasion by a disease not previously recognized in that area is to be considered as a potential epidemic meeting the requirements in respect to reporting of epidemics. (See 38, Report of a disease: par. 3).

13. Fatality - An expression of the severity of disease as judged by the frequency of deaths among the patients or sick persons in which those deaths occur. It may express the general characteristic in relation to an area, a disease or a class of diseases. It is commonly employed quantitatively as a ratio of the number of fatal cases to total cases in a specific clinical or epidemiological experience where all cases have been followed to completion (acute disease) or for a stated period of time (chronic disease).

Common usage of the ratio is disease-specific; thus, the case fatality of diphtheria is 4 %. (Compare 30, Mortality).

14. Food Service Establishment

- a. Food-means and includes all articles, whether simple, mixed or compound, used or intended to be used for food or drink, confectionery or condiment, by human beings.
- b. Food Service Establishment-means any fixed or mobile place, structure or vehicle whether permanent, transient or temporary, including any restaurant, coffee shop, cafeteria, luncheonette, short-order cafe, grille, tearoom, sandwich shop, soda fountain, tavern, bar, cocktail lounge, night club, roadside stand, industrial feeding establishment, private, public or non-profit organization or institution routinely serving the public, catering kitchen, commissary or any other similar eating and drinking establishment or place in which food or drink is prepared for sale or for service on the premises or elsewhere or where food is served or provided for the public with or without charge.
- c. Food Service Establishment, Employee of:-Employee means any person working in a food service establishment who transports food or food containers, who engages in food preparation or service, or who comes in contact with any utensils or equipment used in the preparation, storage and serving of food.

15. Fumigation - Any process by which the killing of animal forms, especially arthropods and rodents, is accomplished by the employment of gaseous agents. (See 27, Insecticide and 41, Rodenticide).

16. Health Education - Health education is the process by which individuals and groups learn to promote, maintain or restore health. To be effective the methods and procedures used to achieve this aim must take account of the ways in which people develop various forces of behavior, of the factors that lead them to maintain or to alter their acquired behavior, and of the ways in which people acquire and use knowledge. Therefore, education for health begins with people as they are, with whatever interests they may have in improving their living conditions, and aims at developing in them a sense of responsibility for health conditions as they affect them as individuals, and as members of families and communities. In communicable disease control, it commonly requires assessment of existing habits, attitudes and knowledge of a disease in a population as they relate to spread and frequency of the disease, with implementation of specific means to remedy observed deficiencies.

17. Host - A man or other living animal, including birds and arthropods, affording under natural conditions subsistence or lodgment to an infectious agent. Some protozoa and helminths pass successive stages in alternate hosts of different species. Hosts in which the parasite attains maturity or passes its sexual stage are primarily or definitive hosts; those in which the parasite is in a larval or asexual state are secondary or intermediate hosts.

18. Immune person - An immune person is one who possesses specific protective antibodies or cellular immunity as a result of previous infection or immunization, or is so conditioned by such previous specific experience as to respond adequately with production of antibodies sufficient in either instance to protect from illness following exposure to the specific infectious agent of the disease. This applies also to animals. Immunity is relative; an ordinarily effective protection may be overwhelmed by an excessive dose of the infectious agent or an unusual portal of entry.

19. Inapparent infection - The presence of infection in a host without occurrence of recognizable clinical signs or symptoms. May be specifically identifiable by laboratory means. (Synonyms: subclinical infection, latent infection).

20. Incidence - A general term used to characterize the frequency of occurrence of a disease, an infection or other event over a period of time and in relation to the population in which it occurs. Incidence is expressed more specifically as a rate, commonly the number of new cases during a prescribed time in the unit of population in which they occur; thus, cases of tuberculosis per 100,000 population per year. (Compare 35, Prevalence).

21. Incubation period - The time interval between the infection of a susceptible person or animal and the appearance of the first sign or symptom of the disease in question.

22. Infected person - Infected persons include both individuals with manifest disease (See 33, Patient or sick person) and those with inapparent infection (See 2, Carrier).

23. Infection - The entry and development or multiplication of an infectious agent in the body of man or animal. Infection is not synonymous with infectious disease; the result may be inapparent (See 19, Inapparent infection) or manifest (See 25, Infectious disease). The presence of living infectious agents on exterior surfaces of the body or upon articles of apparel or soiled articles, is not infection but contamination of such surfaces and articles. The term "infection" should not be used to describe conditions of inanimate matter such as soil, water, sewage, milk, or food; the term "contamination" applies (See 8, Contamination).

24. Infectious agent - An organism, mainly microorganisms (bacterium, protozoon, spirochete, fungus, virus, rickettsia, bedsonia, or other) but including helminths, capable of producing infection and under favorable circumstances of host and environment having the capacity to produce infectious disease.

25. Infectious disease - A disease of man or animal resulting from an infection.

26. Infestation - By infestation of persons and animals is meant the lodgment, development, and reproduction of arthropods on the surface of the body or in the clothing.

Infested articles or premises are such as harbor or give shelter to animal forms, especially arthropods and rodents.

27. Insecticide - Any chemical substance used for the destruction of arthropods, whether applied as powder, liquid, atomized liquid, aerosol, or as a paint-spray; residual action is usual. The term larvicide is generally used to designate insecticides applied specifically for destruction of immature stages of arthropods; imagocide and adulticide, to designate those applied to destroy mature and adult forms.

28. Isolation - The separation for the period of communicability of infected persons from other persons, in such places and under such conditions as will prevent the direct or indirect conveyance of the infectious agent from infected persons to persons who are susceptible or who may spread the agent to others. This applies also to animals. (Compare 36, Quarantine).

Strict isolation of the patient for the period of communicability is necessary in certain diseases, notably smallpox. Isolation of the patient has but little effect in limiting the spread of many diseases, for instance poliomyelitis.

29. Morbidity - A general and variously used term expressing the number of sick persons or cases of diseases in relation to the population in which they occur. Quantitative expression of morbidity is best attained by case incidence rates. (See Definition 20,) occasionally by prevalence ratios (see Definition 35). Disease-specific incidence rates are common usage in expressing morbidity, sometimes further qualified for age, sex or other attribute, and usually representing cases per 100,000 population per year. Attack rate is an incidence rate often used for particular populations, observed for limited periods and under special circumstances, as in an epidemic; the secondary attack rate in communicable disease practice is the number of cases among familial or institutional contacts occurring within the accepted incubation period directly following exposure to a primary case. Case rate expresses the incidence of clinically recognized cases; infection rate, the

sum of infection and infectious disease. Admission rate (USA), is the usual term for morbidity in military populations, an incidence rate that includes both patients admitted to hospital and those confined to quarters.

30. Mortality - A general term characterizing the frequency of deaths in the total population (the sick and the well) in which those deaths occur. (Compare 13, Fatality). Commonly expressed quantitatively as a mortality rate, (death rate), the number of deaths in unit of population occurring within a prescribed time. Crude mortality rates, deaths from all causes, are usually stated as the number of deaths per 1,000 population per year. Disease-specific mortality rates are usually expressed as the number of deaths per 100,000 population per year. All mortality rates are a form of incidence rates.

31. Molluscicide - A chemical substance used for the destruction of snails, generally through ingestion.

32. Pathogenicity - The capacity of an infectious agent to cause disease in a susceptible host.

33. Patient or sick person - A person who is ill; here limited to a person suffering from a recognizable attack of a communicable disease.

34. Personal hygiene - Those protective measures primarily within the responsibility of the individual, by which to promote health and to limit the spread of infections, mainly those transmitted by direct contact. They include (a) Keeping the body clean by sufficiently frequent soap and water baths. (b) Washing hands in soap and water immediately after voiding bowels or bladder and always before eating. (c) Keeping hands and unclean articles, or articles that have been used for toilet purposes by others, away from the mouth, nose, eyes, ears, genitalia, and wounds. (d) Avoiding the use of common or unclean eating, drinking, or toilet articles of any kind, such as cutlery and crockery, drinking cups, towels, handkerchiefs, combs, hairbrushes,

and pipes. (e) Avoiding exposure of other persons to spray from the nose and mouth as in coughing, sneezing, laughing, or talking. (f) Washing hands thoroughly after handling the patient or his belongings and wearing a protective overall apron while in the sickroom.

35. Prevalence - A general term used to characterize the frequency of a disease or other event at a particular time and in relation to the population from which drawn. Prevalence is expressed more specifically as a ratio, prevalence ratio, the number of cases of disease present in a specified population unit at a particular instant of time. Thus, the prevalence ratio of tuberculosis is the number of active cases (all forms, old and new) existing at a designated time per 100,000 persons. (Compare 20, Incidence).

36. Quarantine - (1) Complete quarantine is the limitation of freedom of movement of such well persons or domestic animals as have been exposed to a communicable disease, for a period of time equal to the longest usual incubation period of the disease, in such manner as to prevent effective contact with those not so exposed. (Compare 28, Isolation).

(2) Modified quarantine is a selective, partial limitation of freedom of movement of persons or domestic animals, commonly on the basis of known or presumed differences in susceptibility, but sometimes because of danger of disease transmission. It may be designed to meet particular situations; examples are exclusion of children from school or exemption of immune persons from provisions required of susceptible persons, such as contacts acting as employees of food serving establishments, or restriction of military populations to the post or to quarters.

(3) Personal surveillance is the practice of close medical or other supervision of contacts in order to promote prompt recognition of infection or illness but without restricting their movements.

(4) Segregation is the separation for special consideration, control, or observation of some part of a group of persons or of domestic animals from the others, to facilitate the control of a communicable disease. Removal of susceptible children to homes of immune persons, or the

establishment of a sanitary boundary to protect uninfected from infected portions of a population are examples.

37. Repellent - A chemical applied to the skin or clothing or other places to discourage arthropods from lighting on and attacking an individual; and other agents such as worm larvae from penetrating the skin.

38. Report of a disease - Official report is notification to appropriate authority of the occurrence of specified communicable or other disease in man or animals. Diseases in man except the Venereal Diseases, are reported to the local health department; those in animals to the Division of Livestock Disease Control of the Massachusetts Department of Agriculture. Some few diseases in animals, also transmissible to man, are reportable to both authorities. The venereal diseases - gonorrhea, syphilis, chancroid, lymphogranuloma venereum and granuloma inguinale - should be reported directly to the Massachusetts Department of Public Health on special forms provided on request.

In addition to routine report of cases of specified diseases, special notification of all epidemics or outbreaks of disease is required including diseases not in the list declared reportable. (See 12, Epidemic).

39. Reservoir of infectious agents - Reservoirs are man, animals, plants, soil, or inanimate organic matter, in which an infectious agent lives and multiplies and depends primarily for survival, reproducing itself in such manner that it can be transmitted to a susceptible host. Man himself is the most frequent reservoir of infectious agents pathogenic for man.

40. Resistance - The sum total of body mechanisms which interpose barriers to the progress of invasion of infectious agents.

- a. Immunity - Immunity is that resistance usually associated with possession of antibodies having a specific action on the microorganism concerned with a particular infectious disease. Passive immunity is attained either naturally by maternal transfer, or artificially by inoculation of specific

protective antibodies (convalescent or immune serum or immune (gamma) globulin) and is of brief duration. Active immunity is attained either naturally by infection, with or without clinical manifestations, or artificially by inoculation of fractions or products of the infectious agent, or of the agent itself in killed, modified, or variant form.

- b. **Natural Resistance** - An ability to resist disease independently of antibodies or specifically developed tissue response; it commonly rests in anatomic or physiologic characteristics of the host; it may be genetic or acquired, permanent or temporary.

41. **Rodenticide** - A chemical substance used for the destruction of rodents, generally through ingestion. (Compare 15, Fumigation).

42. **School** - The board of health or school physician may delegate to the school nurse, principal, and/or teacher the responsibility for re-admission to school of a child who has been ill with a communicable disease after the designated period of isolation. (Based on Chapter 71, Section 55, of the General Laws of the Commonwealth of Massachusetts).

43. **Source of infection** - The thing, person, object, or substance from which an infectious agent passes immediately to a host. Transfer is often direct from reservoir to host in which case the reservoir is also the source of infection (measles). The source may be at any point in the chain of transmission, as a vehicle, vector, intermediate animal host, or contaminated article; thus contaminated water (typhoid), an infective mosquito (yellow fever), beef (tapeworm infection), or a toy (diphtheria). In each instance cited, the reservoir is an infected person. Source of infection should be clearly distinguished from source of contamination such as overflow of a septic tank contaminating a water supply, or an infected cook contaminating a salad. (Compare 39, Reservoir).

44. Surveillance of diseases - Disease surveillance, as distinct from surveillance of persons (See definition 36-3), is the practice of close supervision of all aspects of occurrence and spread of a disease which are pertinent to effective control. Included are the systematic collection and evaluation of (a) morbidity and mortality reports; (b) of special reports of field investigations, of epidemics and individual cases; (c) of isolations and identifications of infectious agents in laboratories; (d) of data concerning the availability and use of vaccines, immune globulin, insecticides and other substances used in control; (e) of information regarding immunity levels in segments of the population, and (f) of other relevant epidemiologic data. The procedure applies to all jurisdictional levels of public health, from local to international.

45. Susceptible - A person or animal presumably not possessing resistance against a particular pathogenic agent and for that reason liable to contract a disease if or when exposed to such agent.

46. Suspect - A person whose medical history and symptoms suggest that he may have or be developing some communicable disease.

47. Transmission of infectious agents - Modes of transmission of infection are the mechanisms by which an infectious agent is transported from reservoir to susceptible human host. They are:

a. Contact:

(1) Direct contact: Actual touching of the infected person or animal or other reservoir of infection, as in kissing, sexual intercourse, or other contiguous personal association. In the systemic mycoses, by skin contact with soil, compost or decaying vegetable matter where the agents lead a saprophytic existence.

(2) Indirect contact: Touching of contaminated objects such as toys, handkerchiefs, soiled clothing, bedding, surgical instruments and dressings, with

bedding, surgical instruments and dressings, with subsequent hand to mouth transfer of infective material; less commonly, transfer to abraded or intact skin or mucous membrane.

(3) Droplet spread: The projection onto the conjunctivae and the face or into the nose or mouth of the spray emanating from an infected person during sneezing, coughing, singing or talking. Such droplets usually travel no more than 3 feet from the source. Transmission by droplet infection is considered a form of contact infection, since it involves reasonably close association between two or more persons.

- b. Vehicle: Water, food, milk, biological products to include serum and plasma, or any substance serving as an intermediate means by which an infectious agent is transported from a reservoir and introduced into a susceptible host through ingestion, through inoculation, or by deposit on skin or mucous membrane.
- c. Vector: Arthropods or other invertebrates which transmit infection by inoculation into or through the skin or mucous membrane by biting, or by deposit of infective materials on the skin or on food or other objects. The vector may be infected itself (becoming infective after appropriate extrinsic incubation) or mechanical carrier of the agent.
- d. Air-Borne: The inhalation of microbial aerosols, or their deposition on skin, mucous surfaces or wounds. Microbial aerosols arise from:
 - (1) Droplet nuclei: The small residues which result from evaporation of droplets (see a-(3) above) and remain suspended in air of enclosed spaces for long periods of time. Droplet nuclei also may be created purposely by a variety of atomizing devices, or accidentally in abattoirs, rendering plants, autopsy rooms or by many laboratory procedures.

(2) Dust: The particles of widely varying size which may arise from contaminated floors, clothes, bedding or other articles, or from soil, and ordinarily remain suspended in the air for relatively short periods of time. The finer particles arising from dust may be indistinguishable from droplet nuclei. They include mycotic spores or cells from soil where they lead a saprophytic existence.

48. Zoonosis: - an infection or an infectious disease transmissible under natural conditions between vertebrate animals and man.

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MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH

Division of Communicable Diseases

Recommended Immunization Procedures

Age or Time Interval	Immunizing Agent	Comments
At 2-3 months of age	DTP(1) OPV (2) *	(1) DTP - Diphtheria and Tetanus Toxoids and Pertussis Vaccine, Combined. (2) OPV - Sabin trivalent oral Polio vaccine.
4-6 weeks later	DTP	(3) SP - Smallpox vaccine. (4) TD - Tetanus and Diphtheria Toxoids, Combined, FOR ADULTS USE.
4-6 weeks later	DTP OPV*	OPV - If primary immunization against poliomyelitis is started after 12 months of age, two, rather than three feedings, are sufficient. There should be an interval of at least two months between the two feedings. A single fill-in feeding on entering school for the first time is recommended for all children immunized during their preschool years.
6 or more months after 2nd feeding of OPV	OPV*	
12 months after third injection of DTP	DTP Booster	TD - Is now recommended for all persons over six years of age. If primary immunization against diphtheria and tetanus is started after the sixth year, two rather than three injections (of TD), are sufficient. A booster should be given 12 months after the 2nd injection.
At 12-24 months of age	SP (3) vaccine * Measles vaccine * Rubella vaccine * Mumps vaccine *	
On entering kindergarten or Grade 1	DTP Booster SP Revaccination * OPV Fill-in Feeding * NO PERTUSSIS VACCINE SHOULD BE GIVEN AFTER AGE SIX	N.B. - It is recommended that a booster injection against diphtheria and tetanus (TD) and smallpox revaccination be given at approximately ten-year intervals during adult life. * SIMULTANEOUS ADMINISTRATION OF LIVE VIRUS VACCINES Two or more live virus vaccines (smallpox, oral polio, measles, rubella or mumps) may be administered during a single office or clinic visit. This will not cause a significant increase in adverse reactions or depressed antibody responses to the respective antigens. A trivalent live, attenuated vaccine (measles, German measles, mumps) will be licensed this year.
At 14-15 years of age	SP Revaccination * TD (4) Booster	

